

	Wednesday	Speaker	Title
		session chair	<b>Geology/Atmospheres: The Early Earth</b>
8:00 AM	IIA	Anbar	The Molybdenum Isotope Paleoredox Proxy: Prospects and Progress
8:20 AM	IIA	Chorover	Effects of organic acids and oxygen concentration on mineral dissolution
8:40 AM	IIA	Kasting	Gaiañ Control of Climate During the Archean Era
9:00 AM	IIA	Kaufman	New insights to Neoproterozoic glaciation in Brazil from stratigraphic studies of carbon and sulfur isotopic change and Re/Os age constraints
9:20 AM	IIA	Kennedy	Oxygenation of the late Precambrian atmosphere; inception of the clay mineral factory and mineral surface control of organic carbon burial
9:40 AM	IIA	Khare	Optical Properties of tholins produced in methane-rich early Earth atmospheres
10:00 AM	break		
10:20 AM	IIA	Lowe	Crustal evolution, climate collapse, and a biological change 3.2-2.9 Ga: the first (?) emergence of a low temperature biota
10:40 AM	IIA	Melott	Terrestrial effects of Milky Way gamma-ray bursts: atmospheric, climatic, and biogeochemical impact.
11:00 AM	IIA	Ohmoto	The Absence of Mass Independent Fractionation of Sulfur Isotopes in Archean Sedimentary Rocks: Evidence for an Oxygenated Atmosphere?
11:20 AM	IIA	Pavlov	Consequences of the high hydrogen content in the prebiotic atmosphere.
11:40 AM	IIA	Tolbert	Organic Synthesis From Above: Laboratory Studies of Haze Particles in Simulated Early Earth Atmospheres
12:00 PM	IIA	Wing	Photochemical Sulfur Isotope Effects and the Archean Sulfur Multiple Isotope Record
12:20 PM	lunch		
12:40 PM			
1:00 PM		session chair	<b>Geology/Atmospheres: Mars &amp; the Solar System</b>
1:20 PM	IIB	Ferris	LABORATORY SIMULATION OF PHOTOCHEMISTRY ON TITAN AND COMPARISON WITH AVAILABLE HUYGENS DATA
1:40 PM	IIB	Fisk	Similarity of Aqueous Weathering of Iron-Magnesium Silicates on Earth and Mars
2:00 PM	IIB	Goodman	Dynamics of Hydrothermal Plumes on Europa: Laboratory and Numerical Simulations
2:20 PM	IIB	Zent	Superoxide Stability on the Martian Regolith
2:40 PM	break		
3:00 PM		session chair	<b>Early Life</b>
3:20 PM	IIIA	Arrhenius	Earliest traces of life ? distinguishing techniques and present status of search.
3:40 PM	IIIA	Benner	Exobiology in the Benner Research Group
4:00 PM	IIIA	Burke	A multiple-turnover ATPase ribozyme
4:20 PM	IIIA	Cummings	Workshop on Molecular Evolution, Marine Biological Laboratory
4:40 PM	IIIA	Deamer	Self-assembled molecular systems related to the origin of cellular life.
5:00 PM	break		
5:20 PM	IIIA	Gogarten	Horizontal gene transfer and microbial evolution: Is the iTree of Life a Tree?
5:40 PM	IIIA	Huang	THIOESTERS AND THE RNA WORLD
6:00 PM	IIIA	Love	CATALYTIC HYDROPYROLYSIS OF NEOPROTEROZOIC KEROGENS FROM THE SOUTH OMAN SALT BASIN
6:20 PM	IIIA	Pohorille	The Origin of Membrane Proteins
6:40 PM	IIIA	Schopf	THREE-DIMENSIONAL OPTICAL AND MOLECULAR-STRUCTURAL IMAGERY OF PRECAMBRIAN MICROSCOPIC FOSSILS
7:00 PM	IIIA	Siefert	The Role of Horizontal Gene Transfer in Coalescing Genomes
7:20 PM			
7:40 PM			
8:00 PM			
8:20 PM			
8:40 PM			
9:00 PM			